

# MODIFICATION KIT

FOR THE



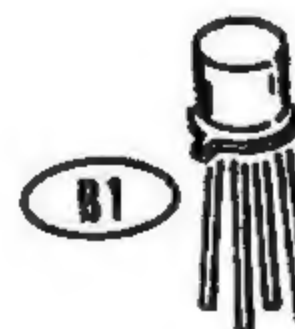
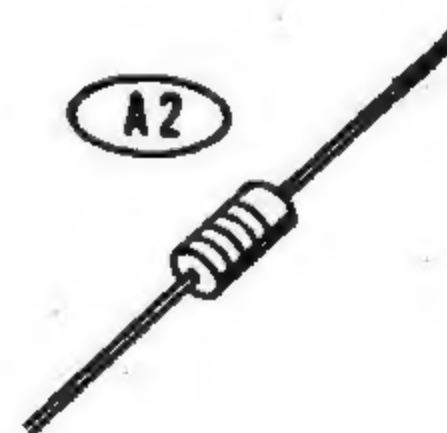
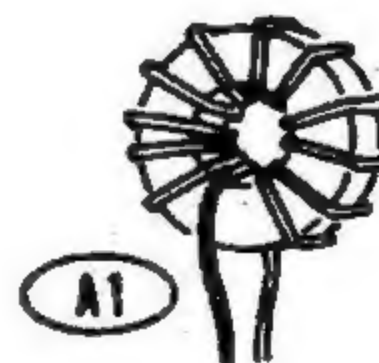
## SB-104 SINGLE SIDEBAND TRANSCEIVER

MODEL SBM-104-1

The purpose of this Modification Kit is to improve the sensitivity of the receiver section of your Model SB-104 Single Sideband Transceiver. After you make this modification, your Transceiver will be updated to reflect the latest Heathkit engineering improvements.

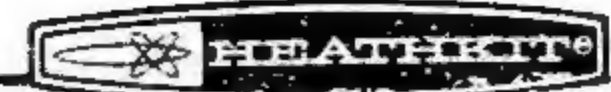
### PARTS LIST

KEY No.	PART No.	QTY.	DESCRIPTION	CIRCUIT Comp. No.
A1	40-1875	1	4.5 $\mu$ H inductor (red dot)	L734
A2	45-73	1	2.2 $\mu$ H inductor	RFC701
B1	417-274	2	40673 transistor	Q701, Q702
		1	Instruction sheet	



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OR, MICHIGAN 49022

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## GENERAL

The illustrations referred to in the following steps are Pictorials in your Model SB-104 Transceiver Manuals, unless otherwise indicated.

To identify the location of any part, refer to the Schematic Diagram and the X-Ray Views in your SB-104 Transceiver Manuals.

Refer to Pictorial 12-41 (fold-out from Page 244 in the Operation Manual) for the following two steps.

- ( ) Remove the two 10-32 x 1/2" screws from each side panel. Set the screws, flat washers, and the cabinet retainer strips aside for use later.
- ( ) Remove the cabinet shells from the chassis. Temporarily set the cabinet shells aside.

## CHASSIS

- ( ) Refer to Pictorial 12-6 (on Page 184 in the Assembly Manual) and disconnect the red wire between terminals G2 and G13. Discard this wire.

Refer to Pictorial 12-22 of this Modification Kit for the following three steps.

- ( ) Cut the orange wire 2-1/2" from where it leaves BO#7.

- ( ) Connect the free end of the orange wire, coming from the harness, to terminal G2 (NS).
- ( ) Connect the orange wire, that was cut off the harness wire to terminal G2 (S-2).

## RECEIVER FRONT END CIRCUIT BOARD

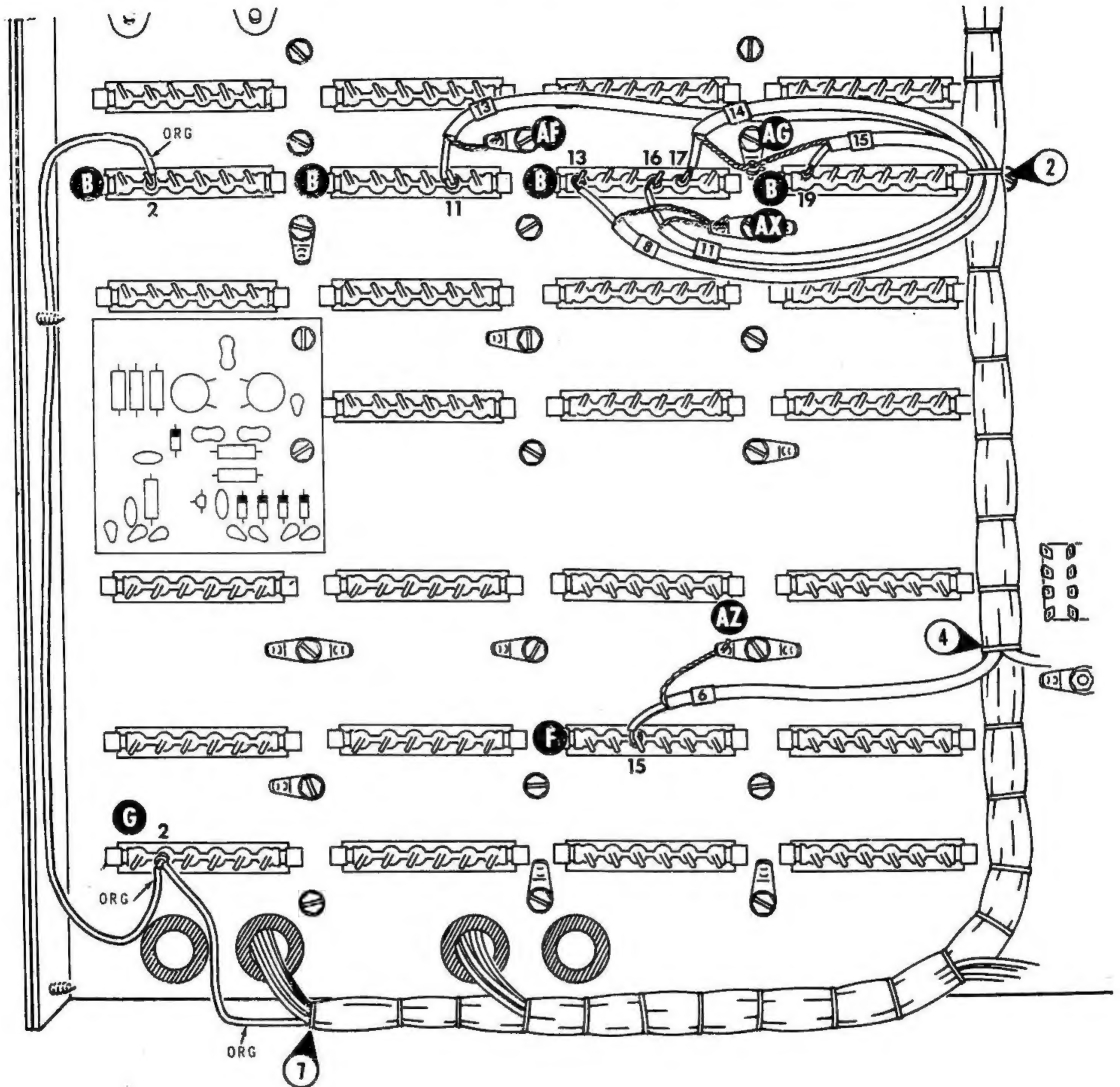
NOTE: After you install and solder each component in the following steps, cut off and discard the excess lead lengths.

Refer to the X-Ray View (fold-out from Page 308 in the Operational Manual) for the location of the parts in the following steps.

- ( ) Remove the 100  $\Omega$  (brown-black-brown) resistor at R719.
- ( ) Install a 2.2  $\mu$ H inductor (#45-73) at R719. Your circuit board is marked 100 at this location.
- ( ) Remove the 7.6  $\mu$ H inductor at L734. This inductor may have white and red color dots.
- ( ) Install a 4.5  $\mu$ H inductor (#40-1875, red dot) at L734.
- ( ) Remove the 40673 transistor (#417-240) at Q701.
- ( ) Install a 40673 transistor (#417-274) at Q701. After you install this transistor, remove the shorting wire from the transistor leads.
- ( ) Remove the 40673 transistor (#417-240) at Q704.
- ( ) Install a 40673 transistor (#417-274) at Q704. After you install this transistor, remove the shorting wire from the transistor leads.
- ( ) Reinstall the cabinet shells and the cabinet retainer strips.







PICTORIAL 12-22

Page 309 in the Operation Manual (fold-out from Page) — Cut out the new part of the Receiver Front End Circuit Board Schematic from Page 4 of these Instructions. Then tape it over the corresponding part of the Schematic in your Manual.

Cut out the new part of the Receiver Front End Circuit Board Schematic from Page 4 of these Instructions. Then tape it over the corresponding part of the large Schematic fold-in.

This completes the modification of your Transceiver.

